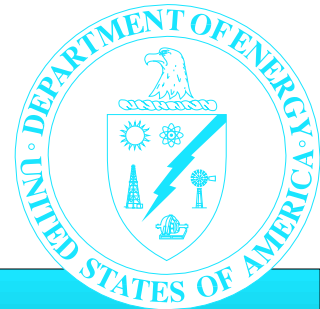


*Idaho National Engineering
and Environmental Laboratory*

**Safeguards and
Security Profile
Summary Analysis**

September 1997



Office of Environment, Safety and Health

1.0

Introduction

The Department of Energy (DOE), Office of Environment, Safety, and Health, conducted a review in October 1997 of the safeguards and security posture at the Department's Idaho National Engineering and Environmental Laboratory (INEEL), which is administered by the DOE Idaho Operations Office. This review was part of a recent initiative by the Assistant Secretary for Environment, Safety, and Health to characterize the current status of safeguards and security programs throughout the Department. The Assistant Secretary for Environment, Safety, and Health uses the Office of Oversight to provide the Secretary of Energy with independent assessments of the Department's performance in the areas of environmental protection, safety, health, and security. This document describes significant aspects of the safeguards and security posture at INEEL observed during this review.

2.0

Background

Location

The INEEL occupies approximately 890 square miles on the Snake River Plain about 46 miles west of the city of Idaho Falls, Idaho. Additional administrative and research facilities are located in several buildings in Idaho Falls. The INEEL site profile excludes the Naval Reactor Facility and Argonne National Laboratory-West, two facilities that are physically located on INEEL but do not fall under the purview of the DOE Idaho Operations Office and are not operated by Lockheed Martin Idaho Technologies Company.

Mission

INEEL's current mission is to apply engineering and scientific capabilities in support of national defense and energy programs. In addition to research and development, major tasks include reactor operation, reactor fuel testing, storage and handling of special nuclear materials, and radioactive waste management.

Security Assets/ Interests

DOE security interests at INEEL include Category I quantities of highly enriched uranium and other Category II or lower quantities of special nuclear material. In addition, there are approximately 30,000 documents/items classified up to Top Secret; two classified special access programs; a sensitive compartmented information facility; and approximately 100 computers and ten

local area networks processing data up to Secret/Restricted Data.

Protection Strategy

The protection strategy at INEEL follows the DOE-mandated approach of "defense-in-depth." Major security interests are surrounded by a layered system of physical barriers, access controls, and intrusion detection systems designed to ensure that attempts to gain unauthorized access to those interests

are either deterred or are detected in sufficient time to permit an appropriate and effective protective force response. Additional administrative

protection elements include the personnel security and the nuclear material control and accountability programs.

3.0

Results of Past Safeguards and Security Reviews

The most recent reviews of safeguards and security programs at INEEL by the local DOE operations office have generally been positive, as have the results of recent self-assessment activities by the site's operational contractor. The results of this review indicate that INEEL has maintained its level of performance in those areas that were found to exhibit an acceptable level of performance by the 1993 Office of Security Evaluations comprehensive inspection, and have substantially improved the effectiveness of those areas that did not demonstrate fully effective performance.

4.0

Results of This Review

Positive Trends and Initiatives

INEEL managers characterize the experience, initiative, and flexibility of the safeguards and security staffs at both DOE and the operations contractor as the most positive attribute of the safeguards and security program. Idaho Operations Office and INEEL managers have begun a number of initiatives to further strengthen the site safeguards and security program. These include a significant line item upgrade at the Idaho Chemical Processing Plant to replace and/or enhance physical barriers, access control, and electronic detection systems; a memorandum of understanding with Argonne National Laboratory-West adding their special response team to the forces responding to an event at INEEL; and a very recent decision to perform a complete review of the protection strategy at the Idaho Chemical Processing Plant

to determine whether alternative response strategies would be more effective in neutralizing adversaries.

Important initiatives completed or nearing completion include disposing of some special nuclear material holdings and consolidating the remainder to simplify protection needs and consolidating and modernizing physical security systems and alarm monitoring facilities (intended to reduce maintenance and operating costs).

The safeguards and security performance testing programs are broad in scope and contribute positively to the effectiveness of protection programs. Tests conducted under the performance assurance program include innovative aspects that increase their value and validity. The performance test programs of individual program elements (e.g., physical security systems, protective force, and material control and accountability) regularly test significant aspects of each element's protection contributions.

Finally, INEEL has conducted extensive research and has formulated a set of radiological sabotage consequence values that seem to far exceed those in use throughout the DOE complex in accuracy and usefulness.

Issues Warranting Management Attention

No protection weaknesses warranting immediate management action were noted at INEEL. However, some specific protection issues warrant increased or continuing management emphasis, as appropriate. First, while the reductions in safeguards and security resources over the past several years (reductions of almost 50 percent) were carefully structured and were preceded by performance testing to assure that adequate protection remained in place, results of INEEL performance testing and the expert judgment of a number of security professionals have led many INEEL managers to believe that additional significant reductions would be inappropriate until additional special nuclear material is removed from the site (anticipated to be complete in 2006).

A number of managers have observed a trend toward increasing numbers of foreign visitors and

assignees at the same time that INEEL is experiencing a growth in its cooperative efforts with other commercial interests and other government agencies. While this is a positive development in many ways, it has not been a traditional role for INEEL. Developing and evolving programs to provide adequate protection for proprietary information and other sensitive information while maintaining the progressive research environment required to attract new projects will present a growing management challenge for a number of years.

In particular, addressing the management and administrative weaknesses in the unclassified computer security program will be a key element in developing an effective protection program for sensitive unclassified information. This portion of the protection program has been weak for a number of years and, while now receiving increased emphasis, continues to exhibit some administrative weaknesses. Continued progress in this area of information protection will be key to meeting site managers' goals.